

HPS 685
HPS 685/55
HPS 685/55 E
HPS 685 E

12 VOLT

***Thanks for choosing one
of our products.***

*Please, read this manual carefully and
keep it for any further reference.*

Suitable for all the vehicles endowed
with original remote control
to close and open the CDL.

HPS 685 rev. 00 February 2006 pag. 1 di 15 COD: 00-99-0068510



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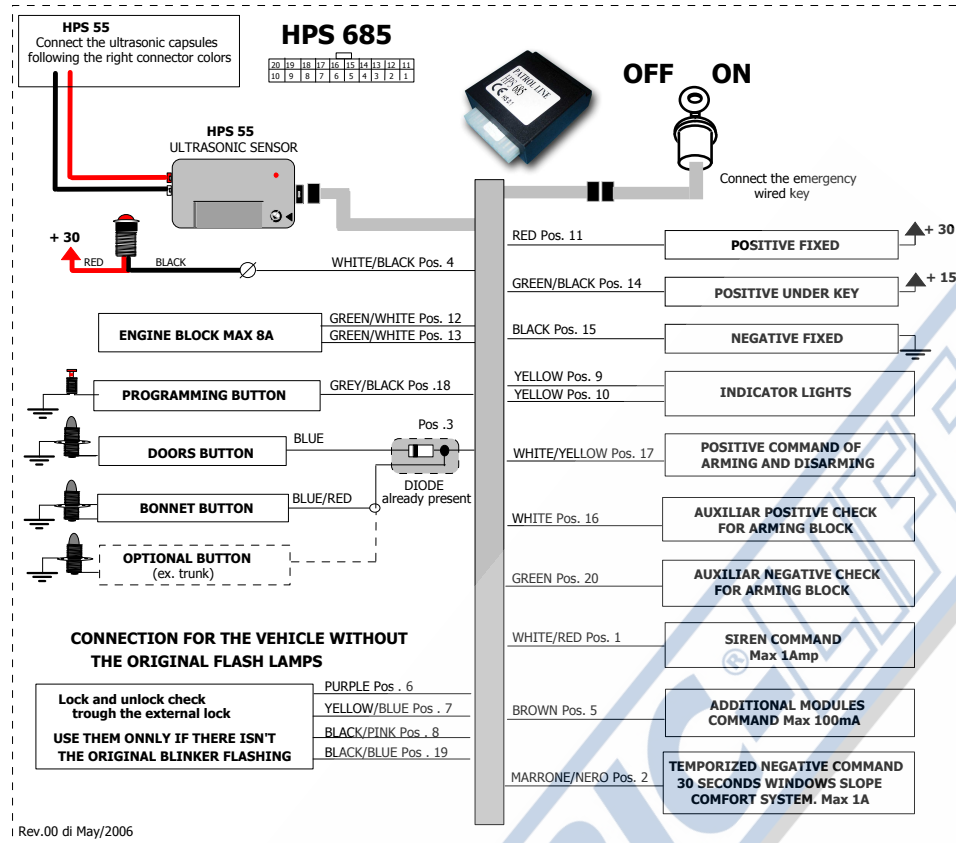
ELECTRIC WIRINGS FOR THE ALARM

Power 12 Volt	Red Wire:	Connect to a fused 12 volt positive line from the battery.
	Black Wire:	Connect to battery negative or vehicle chassis.
Blinkers	Yellow Wires:	Connect to the flasher wires (right and left).
Alarm arming command	White/Yellow Wire:	Connect to a wire of the blinkers.
Perimeter protection	Blue Wire:	Connect to the door switch.
	Blue/Red Wire:	Connect to the bonnet switch.
Ignition switch on	Green/Black Wire:	Connect to a positive under key.
Engine Immobilization 8A	Green/White Wire:	These wires are from a potential free relay with a maximum current of 8A. This relay is open when the alarm is triggered and the ignition key is on. It may be used to control the fuel pump.
Modules Command	Brown Wire:	Negative output with the alarm armed. Connect to the command wire for the optional modules. Max. current 100 mA.
Auxiliary commands to unlock	White Wire:	Positive auxiliary control to avoid the disarming. For the wiring, make reference to the technical sheet of the vehicle.
	Green Wire:	Negative auxiliary control to avoid the disarming. For the wiring, make reference to the technical sheet of the vehicle.

Programming button	Grey/Black Wire:	Connect to the GREY/BLACK wire of the programming push button.
LED command	White/Black Wire:	Connect to the black wire of the signalling LED. Max 100mA.
Plant predisposition	4 pins connector:	Connection for the ultrasonic module HPS 55 .
Extra siren command	White/Red Wire:	Negative command of device in alarm. Max 1Amp.
Windows rising "COMFORT" type command	Brown/Black Wire:	30 seconds negative command useful for the windows rising (if endowed with comfort system). Max 1A.
Opening switch control	Violet Wire:	Switch control for door opening command through key. To be used only when the original blinkers flashing is missing.
Closing switch control	Yellow/Blue Wire:	Switch control for door closing command through key. To be used only when the original blinkers flashing is missing.
Opening engine control	Black/Pink Wire:	Engine control for opening command trough remote control. To be used only when the original blinkers flashing is missing.
Closing engine control	Black/Blue Wire:	Engine control for closing command trough remote control. To be used only when the original blinkers flashing is missing.

For the wires connection, take a look to the technical sheet of the vehicle.

WIRING DIAGRAM CONNECTION



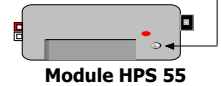
EXAMPLES OF CONNECTIONS

<p>Type 1: connections with a car equipped whit original flashing.</p>	<p>HPS 685</p> <p>YELLOW alarm → to the left blinker</p> <p>YELLOW alarm → to the right blinker</p> <p>WHITE/YELLOW alarm</p>
<p>Type 2: connections with a car equipped whit original flashing in separated lines</p>	<p>HPS 685</p> <p>YELLOW alarm → to the front left blinker</p> <p>YELLOW alarm → to the lateral left blinker</p> <p>YELLOW alarm → to the rear left blinker</p> <p>YELLOW alarm → to the front right blinker</p> <p>YELLOW alarm → to the lateral right blinker</p> <p>YELLOW alarm → to the rear right blinker</p> <p>WHITE/YELLOW alarm → to the rear right blinker</p>
<p>Type 3: connections with a car not equipped whit original flashing.</p>	<p>HPS 685</p> <p>YELLOW alarm → to the left blinker</p> <p>YELLOW alarm → to the blinker right</p> <p>WHITE/YELLOW alarm</p> <p>BLACK/BLUE alarm → to the POSITIVE command wire of the CDL closing</p> <p>BLACK/PINK alarm → to the POSITIVE command wire of the CDL opening</p> <p>YELLOW/BLUE alarm → to the NEGATIVE command wire of the CDL switch closing</p> <p>VIOLET alarm → to the NEGATIVE command wire of the CDL switch opening</p>
<p>Type 4: connections with a car not equipped whit original flashing in separated lines</p>	<p>HPS 685</p> <p>YELLOW alarm → to the front left blinker</p> <p>YELLOW alarm → to the lateral left blinker</p> <p>YELLOW alarm → to the rear left blinker</p> <p>YELLOW alarm → to the front right blinker</p> <p>YELLOW alarm → to the lateral right blinker</p> <p>YELLOW alarm → to the rear right blinker</p> <p>WHITE/YELLOW alarm → to the rear right blinker</p> <p>BLACK/BLUE alarm → to the POSITIVE command wire of the CDL closing</p> <p>BLACK/PINK alarm → to the POSITIVE command wire of the CDL opening</p> <p>YELLOW/BLUE alarm → to the NEGATIVE command wire of the CDL switch closing</p> <p>VIOLET alarm → to the NEGATIVE command wire of the CDL switch opening</p>

ADJUSTMENT OF THE ULTRASONIC SENSOR SENSITIVITY:

The sensitivity of the ultrasonic sensor can be modified working on the regulation trimmer of the module. Turn the trimmer clockwise to increase the sensitivity and anticlockwise to decrease it. Be careful: a non correct adjustment can cause false alarms.

Ultra-sounds adjustment



Module HPS 55

COMMANDS PROGRAMMING

Once the electric connections are over, it is necessary to synchronize the original remote control of the vehicle with the alarm following this procedure:

PROCEDURE OF FIRST PROGRAMMATION

1. Take off the ignition key and turn clockwise (ON) the mechanical key of the alarm.

The LED of the dashboard ON fixed and 10 quick flashings will confirm that the synchronization is started.

2. Verify that the car is completely closed (bonnet, doors and boot) and press the closing button of the original remote control.
3. Once the flashings are over, the switching off of the LED and an acoustic signal will confirm that the closing command has been memorized.
4. Press the opening button of the original remote control.
5. Once the flashings are over, an acoustic signal will confirm that the opening command has been memorized and the procedure is finished.

PROCEDURE OF PROGRAMMATION AFTER THE FIRST ONE.

In case it would be necessary to erase the previous programming, it must be followed the procedure here under to repeat the synchronization:

1. Turn anticlockwise (OFF) the mechanical key of the alarm.
2. Switch on, and leave on, the ignition key.
3. Turn clockwise (ON) the mechanical key of the alarm.

The LED of the dashboard ON fixed and 10 quick flashings will confirm that the synchronization is started.

4. Switch off the ignition key, verify that the car is completely closed (doors, bonnet and boot) and press the closing button of the original remote control.
5. Once the flashings are over, the switching off of the LED and an acoustic signal will confirm that the closing command has been memorized.
6. Press the opening button of the original remote control.
7. Once the flashings are over, an acoustic signal will confirm that the opening command has been memorized and the procedure is finished.

Optional Functions Available

In case the original remote control has more buttons and, pressing for a second time the closing button, the blinkers flash like the first closing, it is possible to synchronize the following extra functions:

- Panic Alarm
- Siren Exclusion

To enable them

When switching on through the mechanical key, during the 10 quick flashings of the blinkers (beginning of the commands programming phase) press for 3 seconds the programming button of the alarm.

To disable them

Repeat the phase of programming without pressing the programming button.

FINAL TESTING

Once the programmations are over and once verified that the car is completely closed, press the closing button of the original remote control and verify that the LED on the dashboard is ON.

Test all the functions and verify the regulation of the crash and ultrasonic sensors.

Press the opening button of the original remote control and verify that the LED of the dashboard switches off.

SOLUTION TO LITTLE PROBLEMS

Here under, a simple and useful guide to solve little problems:

THE ALARM DOES NOT ARM	<ul style="list-style-type: none">• Check the power supply of the alarm.• Verify that the mechanical key of the alarm is clockwise turned (position "ON").• Check that on the Green/Black wire there is not a positive with the ignition key "off".• If the problem is not solved, repeat the synchronization of the original remote control.
THE ALARM ARM WHEN OPENING THE CAR	<ul style="list-style-type: none">• Repeat the synchronization procedure of the original remote control.
THE ALARM DOES NOT EMIT ANY SOUND WHEN ARMING	<ul style="list-style-type: none">• Programm the "acousting signalling of arming and disarming" function through the programming button.
"BEEP" SIGNALLING AFTER ARMING	<ul style="list-style-type: none">• Verify that all the doors are well closed.• Verify the regulation of the crash sensor• If the problem is not solved, disconnect the sensors (one by one) and identify the defective one.
THE VEHICLE DOES NOT SWITCH ON	<ul style="list-style-type: none">• Verify that the alarm is disarmed (LED off).• Verify the connection of the wire GREEN/WHITE of the alarm. We suggest a soft soldering.
THE ALARM ARMS BY ITSELF	<ul style="list-style-type: none">• Verify if the car is endowed with "self closing" function (original function which close automatically the cdl if is not opened a door).

User's Manual

Thanks for choosing one of our products.

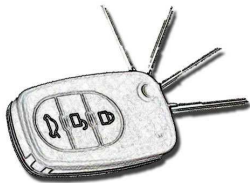
Please, read this manual carefully and keep it for any further reference.

WORKING

ALARM ARMING

Press the **CLOSING** button of the remote control. The arming will be conformed by:

- 3 acoustic signals (if programmed and if installed)
- Switching on of the LED on the dashboard
- Switching on of the blinkers of the vehicle
- Activation of the electric engine immobilization
- Activation of the modules output (windows-rising, ultrasounds, ecc.)



ALARM DISARMING

Press the **OPENING** button of the remote control. The disarming will be conformed by:

- 1 acoustic signal (if programmed and if installed)
- Switching off of the LED on the dashboard
- Switching on of the blinkers of the vehicle
- Deactivation of the electric engine immobilization
- Deactivation of the modules output (windows-rising, ultrasounds, ecc.)

INIBITION TIME & SYSTEM CHECK

Once the blinkers flashing is over, the alarm system enters its "inibition time" for approximately 30 seconds, as signalled by the fixed light of the LED. During the inibition time, it is possible to test the good working of the alarm sensors without triggering the siren. Bumping into the vehicle, opening the doors or the boot (perimetral buttons), a short acoustic signal will confirm that the sensor has noticed the alarm. During this phase, the alarm does not enable the high power siren but provide anyway to block the engine. **WARNING:** should the ignition switch on, the siren sound will immediately start.

ALERT STATE

At the end of the inibition time (30 seconds), the alarm system is ready to signal any theft attemp.The alert state is signalled by quick flashes of the LED installed on the dashboard.

PANIC ALARM

If the original remote control repeat the closing signalling (as described in the paragraph "optional functions available") when the alarm is armed, it is possible to make the siren sounding through another pression of the closing button of the original remote control.

ALARM

In case of tampering, the system weill emit an optic-acoustic signalling (blinkers flashing and siren sound) for 30 seconds.

SIREN EXCLUSION

If the original remote control repeat the closing signalling (as described in the paragraph "optional functions available") while the alarm is still sounding, it s possible to stop the siren sound without disarming the alarm through another pression of the closing button of the original remote control.

MEMORY OF ALARM

If the central unit notices one o more causes of alarm, they are signalled, when disarming, through another flashing of the blinkers and by a number of "beep" as per the alarms occurred (if the acoustic signalling function is programmed).

To verify which type of alarm has occurred, press for 1 second the programming button. Compare the number of beeps emitted by the alarm with the following table.

N° Beep	CAUSE
1	DOOR, BONNET AND BOOT SWITCH LINE
3	ULTRASONIC SENSOR
4	ENGINE SWITCHING ON ATTEMPT

Note: The signalling of the LED will stop after the ninth or until the swiching on of the ignition key.

SIREN LIMITATION FOR CONSECUTIVE ACTIVATIONS

If, during the alert state, the alarm sensors notice for 3 consecutive times a cause of alarm, at the fourth cause of alarm the central unit will exclude its siren signalling the alarm only by the blinkers flashing. During this phase, is in any case active the electric engine block.

WARNING: in case the ignition key is on, the sound of the siren is restored.

POWER BACKUP

The alarm is endowed with INSIDE batteries which guarantee its working even in case somebody cut the cable which connects the battery to the alarm wiring plant.

MECHANICAL EMERGENCY KEY

In an emergency, insert the emergency key into the alarm and turn it anti-clockwise. The alarm system is so completely switched off and the electric block engine is restored.

Funzioni Programmabili

ACOUSTIC SIGNALLING WHEN ARMING AND DISARMING

Through the original remote control the alarm is activated and this is confirmed by the blinkers flashing and the LED switched on. Sometimes can be useful signal the arming and the disarming with an acoustic signalling (not activated from the firm).

- **Acoustic signalling function.**

To enable it:

With the alarm disarmed and the ignition key switched off, check the correct lock of the vehicle (bonnet, doors and boot) and, if the vehicle is endowed with tempirized roof lamp, wait until also this one is switched off. Press the programming button for more than 3 seconds.

The activation of the function is signalled by **5 beeps. (if the siren is installed)**

To disable it:

Repeat the operations described above.

The deactivation of the function will be signalled by **1 beep. (if the siren is installed)**

"ESTATE" FUNCTION

If you need to leave the windows open avoiding false alarms because of the ultrasonic sensors, you can enable the "estate" function (not activated from factory)

- **"Estate" function**

To enable it:

With the alarm disarmed and the ignition key turned off, open the door on the driver's side. Press the programming button for more than 3 seconds.

The activation of the function will be confirmed by **2 beeps. (if the siren is installed)**

To disable it:

Repeat the operations described above.

The deactivation of the function will be signalled by **1 beep. (if the siren is installed)**

"ANTIAGGRESSION" FUNCTION" (only version "685 E")

IMPORTANT: BEFORE TO PROGRAM THIS FUNCTION, READ CAREFULLY THE FOLLOWING NOTE.

ATTENTION: IN CASE TO ACTIVATION OF THIS FUNCTION, THE COMPLIANCE WITH THE EUROPEAN DIRECTIVE 95/56 IS NOT MORE VALID.

ATTENTION: IN CASE TO ACTIVATION OF THIS FUNCTION, THE ENGINE BLOCK CAN BE ACTIVED WHEN VEHICLE IS MOVING.

If programmed, when the key is turned ON, the dashboard LED turn ON, the function start.

After 50 seconds, the alarm active the siren (if installed) and the blinkers flashes for 20 seconds (pre-alarm), finally will be active also the engine block of the vehicle.

To stop the "antiaggression" function it's necessary to press the **programming button**.

IN ANY CASE, THE COMPANY IS NOT RESPONSIBLE FOR DAMAGES (CAUSED BY PROPERTY OR PERSON) RESULTING FROM THE OPERATION OF THE ANTIAGGRESSION.

To active it:

Alarm disarmed and key ON, open the drive side door.

Push the programming button for more of 5 seconds.

The activation of this function will be confirmed by **3 beep** (only with the siren installed)

To disable it:

Replace the precedent operation.

The deactivation will be confirmed by **1 beep** (only with the siren installed)

"ANTITHEFT" FUNCTION" (only version "685 E")

IMPORTANT: BEFORE TO PROGRAM THIS FUNCTION, READ CAREFULLY THE FOLLOWING NOTE.

ATTENTION: IN CASE TO ACTIVATION OF THIS FUNCTION, THE COMPLIANCE WITH THE EUROPEAN DIRECTIVE 95/56 IS NOT MORE VALID.

ATTENTION: IN CASE TO ACTIVATION OF THIS FUNCTION, THE ENGINE BLOCK CAN BE ACTIVED WHEN VEHICLE IS MOVING.

If programmed, when the door is opened and closed with the key ON, the dashboard LED turn ON, the function start.

After 50 seconds, the alarm active the siren (if installed) and the blinkers flashes for 20 seconds (pre-alarm), finally will be active also the engine block of the vehicle.

To stop the "antitheft" function it's necessary to press the **programming button**.

IN ANY CASE, THE COMPANY IS NOT RESPONSIBLE FOR DAMAGES (CAUSED BY PROPERTY OR PERSON) RESULTING FROM THE OPERATION OF THE ANTIAGGRESSION.

To active it:

Alarm disarmed and key ON, all the doors, trunk and bonnet must be close and the internal light must be OFF.

Push the programming button for more of 5 seconds.

The activation of this function will be confirmed by **4 beep** (only with the siren installed)

To disable it:

Replace the precedent operation.

The deactivation will be confirmed by **1 beep** (only with the siren installed)

ALARM MAINTENANCE

Our alarms are sophisticated systems characterised by a high level of reliability. This reliability as well as time life may be furthermore incremented just adopting some precautions such as:

VEHICLE CLEANING: should you clean the vehicle with high-pressure devices (hydrobeam or similar), please protect the alarm before starting the cleaning. In case of water infiltrations caused by hydrobeam, this will automatically invalidate the warranty.

MAIN MAINTENANCE: all the repairs must be done by PATROL LINE assistance centres. Tampering to the alarm by non authorised staff may invalidate alarm feasibility as well as your vehicle safety.

TECHNICAL FEATURES

TENSION FEEDING.....	9V ÷ 15V
CURRENT CONSUMPTION (ALARM ARMED).....	6 mA
CURRENT CONSUMPTION (ALARM ARMED WITH ULTRASONIC SENSORS).....	16 mA
MAX CURRENT ON THE BLINKERS RELAY.....	6A + 6A
MAX CURRENT ON THE ENGINE IMMOBILIZATION RELAY.....	8A
INHIBITION TIME.....	< 30 sec.
ALARMING DURATION.....	< 30 sec.
OUTPUT FOR ADDITIONAL MODULES.....	100 mA
OUTPUT FOR COMFORT WINDOWS-RISING COMMAND.....	1A
OUTPUT FOR SUPPLEMENTARY SIREN	1A
OPERATING TEMPERATURE.....	-40°C / +85°C
DIMENSIONS.....	74 x 57 x 30
WEIGHT.....	220 gr.

QUICKLY GUIDE TO ACTIVATE THE FUNCTIONS

FUNCTION	ALARM SYSTEM	DRIVER DOOR STATE	VEHICLE KEY	PROGRAMMING BUTTON
"ESTATE" function	OFF	OPENED	OFF	PRESSED FOR 3 SECONDS
ARMING ACOUSTIC SIGNAL (ONLY WITH SIREN)	OFF	CLOSED	OFF	PRESSED FOR 3 SECONDS
"ANTIAGGRESSION" FUNCTION*	OFF	OPENED	ON	PRESSED FOR 5 SECONDS
"ANTITHEFT" FUNCTION*	OFF	CLOSED	ON	PRESSED FOR 5 SECONDS
PANIC ALARM** (ONLY WITH SIREN)	OFF	OPENED	OFF	PRESSED FOR 3 SECONDS
SIREN EXCLUSION** (ONLY WITH SIREN)	OFF	CLOSED	OFF	PRESSED FOR 3 SECONDS

*AVAILABLE ONLY FOR THE VERSION HPS 685E

**THIS FUNCTION DEPEND FROM THE ORIGINAL REMOTE CONTROL OF THE VEHICLE



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